

PRELIMINARY TAXONOMIC STUDIES IN THE PALM GENUS ORBIGNYA MART.*

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Martius first erected the genus Orbignya in 1837. No species were described in this article, but in 1844 he delineated O. phalerata and O. humilis as the first two taxa. At later dates, other species of Orbignya were described or transferred from other genera (mainly Attalea) by Drude (1881), Barbosa Rodrigues (1879, 1888, 1891, 1898, 1903), Burret (1929, 1930, 1932, 1940), Bondar (1954) and several other authors.

Perhaps the most detailed treatment of Orbignya was by Burret (1929). He recognized a total of 19 species and at the same time divided the genus into three sections: Distichanthus Burret, Pleiostichanthus Burret and Spirostachys Burret. In the first two sections the male flowers are arranged in two rows along the rachillae of the male spadix (and in turn they are distinguished from each other by whether the fibers in the fruit endocarp are abundant or scarce to absent), whereas in the section Spirostachys, the male flowers are spirally arranged around the rachillae. Burret also presented a partial key to the sections and species within each. Of 13 species partly keyed out in the first section, eight are listed as unknown or doubtful; of four listed in the second section, two are listed as doubtful; and in the third section the two species are not keyed out and one is listed as doubtful. In his "Palms of Brazil," Bondar (1964) listed 14 species of Orbignya, some with brief descriptions, but without keys.

As previously mentioned in Glassman (1977), Wessels Boer (1965, 1972) treated all species of Orbignya, as well as other closely related genera in Surinam and Venezuela, as part of the genus Attalea, sensu lato. Closely related genera to Orbignya (Attalea, Scheelea, Maximiliana, Parascheelea and Markleya) have been discussed and differentiated in Glassman (1977).

In preparing this study several facts became evident. In most cases, type specimens for each species of Orbignya are either fragmentary or nonexistent, very few additional collections have been made for each species, and descriptive and illustrative

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information is usually inadequate.

The following is a description of the genus Orbignya as it is presently delimited: tall trees mostly with smooth trunks and inconspicuous leaf scars, or lacking trunks (acaulescent); leaves usually very long, pinnately compound, leaf base conspicuous, petiole sometimes short, with fibrous margins; pinnae single for the most part, but clustered in several taxa; plants monoecious, flowers unisexual, both androgynous and male spathes woody and deeply sulcate, usually terminating in a fairly long umbo; androgynous spadices usually with many branches (rachillae), each branch with few to several female flowers along basal part forming triads with two male flowers, the terminal portion slender with male flowers only; female flowers relatively large (2.0 to 4.5 cm long), subtended by two bracts, with 3 subequal or equal convex imbricate sepals and 3 similar petals, pistil with a well developed staminodial ring surrounding the ovary, carpels 3-several, fused, stigmas 3-6, style short or absent; male spadices many branched, male flowers usually arranged on one side of the rachillae, sometimes spirally arranged; male flowers with 3 short sepals and 2-5 much longer flattened, curved, obovate or ovate petals which are often fused and irregularly notched, stamens 6-24 per flower, included in the petals, thecas of anthers separate and divergent, irregularly coiled and inrolled, fruits 1-several seeded, exocarp fibrous, mesocarp usually pulpy and fibrous, endocarp stony, usually more than twice as thick as exocarp and mesocarp combined, frequently dotted with clusters of fibers, persistent perianth and staminodial ring enlarged in fruit; seeds conforming to size and shape of locules, endosperm homogeneous.

A total of 30 species has been described or transferred under the name Orbignya. Of this number, 18 (including six synonyms) definitely or most probably belong to Orbignya; one species, O. dubia, is definitely not Orbignya; and the third category (doubtful or uncertain taxa) encompasses five names. Also included here are species closely related to Orbignya, but probably belonging to different genera: Attalea crassispatha, Markleya dahlgreniana and Parascheelea anchistropetala.

The following key, based on specimens examined plus descriptions and illustrations, includes 21 taxa (18 species of Orbignya and the three closely related species mentioned above). One should be reminded, however, that this is a preliminary study and that several species are based on incomplete collections or in some cases only descriptions and illustrations. Only with further collections can the full range of variability be determined; but in some cases this is not possible because the species

either has become extinct or its original habitat appears to have been destroyed. Subsequent to the species key, each of the four categories of species mentioned above are arranged alphabetically with the author and original place of publication. Sometimes, other pertinent articles are also listed. Complete citations of most of these plus other articles mentioned in the text are listed under LITERATURE CITED at the end. Pertinent synonyms are also listed. The type of each species, when known, is listed and is then followed by a list of cited specimens examined by the author. Holotypes, isotypes and lectotypes are specifically listed as such; however, when its status is uncertain it is merely called "type." For each specimen, collector's name and collecting number is followed by a symbol of the herbarium where the collection is deposited. Abbreviations of herbaria used here are those listed in "Index Herbariorum" by Holmgren and Keuken (1974).

Key to Species of Orbignya and Related Genera

1. Middle pinnae mostly in clusters of 2-4
 2. Plants acaulescent or with short trunk, middle pinnae 15-56 cm long and 2.5-3 cm wide, stamens 12-24 per flower
 3. Stamens 12-16
 4. Fruit 5 seeded, stamens 12-16 O. eichleri
 4. Fruit 2-3 seeded, stamens 12 O. humilis
 3. Stamens 16-24
 5. Female flowers 3-3.5 cm long, stamens 16-18, branched part of androgynous spadix 15 cm long, bracts subtending female flowers not long acuminate
 O. campestris
 5. Female flowers 2.5 cm long, stamens 16-24, branched part of androgynous spadix 40 cm long, bracts subtending female flowers long acuminate, 3-4 cm long
 O. longibracteata
 2. Plants with trunk 2-25 m high, middle pinnae 80-130 cm long and 3.0-8.0 cm wide, stamens 6-20 per flower

6. Fruits 7-9 cm long, 3-7 seeded
7. Petals of male flowers lanceolate, broader below gradually narrowed above, stamens 7-10 per flower, fruit 7-8 cm long, 3 seeded, middle pinnae 7-8 cm wide
 Markleya dahlgreniana
7. Petals of male flowers narrowed below, abruptly broadened above, stamens 20 per flower, fruit 8-9 cm long, 3-7 seeded, middle pinnae 4-5 cm wide
 O. macrocarpa
6. Fruits 3-6 cm long, 1-3 seeded
8. Trunk creeping for several m., upright part 3-4 m high, fruit 5-6 cm long, middle pinnae 5-6 cm wide, stamens 6 or 9-12
 O. spectabilis
8. Trunk 20-25 m high, fruit 3-4.5 cm long, middle pinnae 3-4 cm wide, stamens 9-11
 Attalea crassispatha
1. Middle pinnae not clustered, more or less evenly spaced
9. Plants acaulescent or nearly so
10. Middle pinnae 4-9 cm wide and 90-140 cm long
11. Male flowers 10-13 mm long, spirally arranged around rachilla, stamens 16-24 per flower, female flowers 3-4.5 cm long O. cuatrecasana
11. Male flowers 5-10 mm long, arranged on one side of rachilla, stamens 6-16 per flower, female flowers 1.5-2.5 cm long
12. Petals of male flowers broader below and gradually narrowed above, stamens 6-8 per flower, fruits 6-7 cm long. Parascheelea anchistropetala
12. Petals of male flowers usually narrowed below and abruptly broadened above, stamens 11-16 per flower, fruits 3.5-4.5 cm long

13. Male flowers completely encircling rachillae of male spadix, stamens 11-16 per flower, endocarp of fruit mostly without fibers
 O. polysticha
13. Male flowers in 3-5 rows on one side of each rachilla of male spadix, stamens about 12 per flower, fibers in fruit endocarp common
 O. sagotii
10. Middle pinnae 3-4 cm wide and 40-85 cm long
14. Male flowers 9-10 mm long, stamens 22 per flower O. pixuna
14. Male flowers 11-14 mm long, stamens 9-18 per flower
15. Stamens 9-13 per flower, male rachillae 5-6.5 cm long, female flowers 1.5-2 cm long and 1 cm in diam
 O. sabulosa
15. Stamens 15-18 per flower, male rachillae 6-12 cm long, female flowers 3 cm long and 2 cm in diam
 O. urbaniana
9. Plants 2-20 m tall
16. Middle pinnae 2.5-4 cm wide and 60-90 cm long, fruit about 7.5 cm long
17. Stamens mostly 24 per flower, trees about 20 m tall when full grown
 O. phalerata
17. Stamens 18-20 per flower, trees up to 8 m tall O. teixeiriana
16. Middle pinnae 4-7 cm wide and 90-150 cm long, fruit 6-12 cm long
18. Middle pinnae 4-5 cm wide, male flowers 10-12 mm long, stamens mostly 20 per flower
19. Plants about 10 m tall when full grown, fruits 6-9 cm long and 4-4.5 cm in diam., middle pinnae about

- 110 cm long; male flowers completely surround rachilla
 O. guacuyule
19. Plants 2-5 m tall, fruits about 9 cm long and 6.6 cm in diam, middle pinnae about 80 cm long; male flowers arranged on one side of the rachilla
 O. macrocarpa
18. Middle pinnae 5-7 cm wide, male flowers 13-15 mm long, stamens mostly 24 per flower
20. Trees about 20 m tall when mature, fruits 9-12 cm long with 3-6 seeds, middle pinnae about 150 cm long; male flowers arranged in two rows on one side of rachilla
 O. barbosiiana
20. Trees about 6 m tall when mature, fruits 7-8 cm long with one seed, middle pinnae about 120 cm long; male flowers completely surround rachilla
 O. cohune

ORBIGNYA Mart. ex Endlicher, Gen. Pl. 257. 1837 (Conserved name).
Orbignya Bertero, Mercurio Chil. 16: 737. 1829 (Euphorbiaceae).
 Type species: Orbignya phalerata Mart.

ORBIGNYA

Alphabetical List of Species

- O. barbosiiana Burret, Notizbl. 11:690. 1932; H.E. Moore, Principes 7:155. 1963.
 Type: published as a new name for O. speciosa (Mart.) Barb. Rodr. mainly because of confusion with O. cohune (Mart.) Dahlgren. by Barbosa Rodrigues.
Attalea speciosa Mart., Hist. Nat. Palm 2:138, t. 96, fig 3-6. 1826; Wessels Boer, Indig. Palms Suriname, 164-165. 1965.
Orbignya speciosa (Mart.) Barb. Rodr., Pl. Nov. Cult. Jard. Bot. Rio de Jan. 1:32, t. 9, fig B1-9. 1891; Sert. Palm. Bras. 1:t. 52-53, 1903; Burret, Notizbl. 10:503-505, t. 9. 1929.
 Type: Brazil, Maranhão and Pará (no specimens cited)
O. lydiae Drude, Mart. Fl. Bras. 3:448, t. 102. 1881; Lindman, Bih. Sv. Vet. Akad. Handl. 26:fig 8. 1900; Dahlgren, pl. 341. 1959. Attalea lydiae (Drude) Barb. Rodr., Sert. Palm. Bras. 1:65. 1903.

Lectotype: Brazil, native to Pará, Cult. Rio de Janeiro (Glaziou 9006-C). c.f. Dahlgren 1959, pl. 341.

O. martiana Barb. Rodr., Palm, Mattogross. 68, t. 22, t. 23, fig 1-14. 1898.

Type: published as a new name for O. speciosa because of incomplete descriptions (no flowers) by Martius and uncertainty of its delimitation by subsequent authors; in 1903, however, O. martiana was transferred back to O. speciosa.

O. macropetala Burret, Notizbl. 10:507. 1929.

Holotype: British Guiana, Rupununi (Schomburgk s.n. - B).

O. oleifera Burret, Notizbl. 14:240. 1938; 15:103. 1940.

Holotype: Brazil, Minas Gerais, Pirapora (Burret 19-B).

Specimens examined: Brazil, without locality and collector (F-614714), (F-614748); Pará, Tapajos, Kuhlmann 2203 (F-611585), Capucho 537 (F); São Luiz, Dahlgren s.n. (F-615321); Mujuhy dos Campos, near Santarem, Dahlgren s.n. (F-615318); Ceara, Serra de Baturite, Dahlgren s.n. (F-613570); Pacoty, Dahlgren s.n. (F-619725); Mato Grosso, region of Rio Machado, Angustura, Krukoff 1600 (F-620732); Minas Gerais, Pirapora, Burret 19 (B, holotype of O. oleifera; Burret 19 & Brade-RB). Surinam, Palaime Kreek, 20 km. W. of Sipaliwini, Wessels Boer 806 (U); Coeroeni R., in subhydrophytic forest, Wessels Boer 1588 (U). British Guiana, Rupununi, Schomburgk s.n. (B, holotype of O. macropetala). Cultivated, Brazil, Belem, prop. Alvaro Alfredo, Dahlgren s.n. (F-615317); British Guiana, Georgetown Bot. Garden, L.H. Bailey 509 (BH), Dahlgren s.n. (F-610806); Brazil, Rio de Janeiro, Passeio Publico, Glaziou 9006 (C, lectotype of O. lydiae; NY, P).

Vernacular names: Babassu, Babaçu, Uaussu, Baguaçu, Guaguaçu.

Distribution: Brazil, Maranhão, Pará, Minas Gerais, Mato Grosso; Surinam and British Guiana.

Orbignya barbosiana was published as a new name by Burret (1932) for O. speciosa because the latter species was confused with O. cohune (a Central American palm) by Barbosa Rodrigues (p. 32, t. 9, fig 1-9. 1891; p. 16, t. 5B, 1896) and subsequent authors. Moore (1963) was one of the first authors to recognize O. barbosiana as the valid name, whereas Wessels Boer (1965) considered it to be a superfluous name. There is a fundamental difference between the two species in question: O. barbosiana has male flowers on one side of the rachilla, while male flowers surround the rachilla in O. cohune.

Barbosa Rodrigues (1898) published O. martiana as a new name for Attalea speciosa Mart. because the latter was based on inadequate

descriptions as well as incomplete collections. Neither Martius (1826, 1844, 1845, 1853), Wallace (1853), Spruce (1871), Trail (1876), nor Drude (1881) described or collected flowers from this species; but in 1898 Barbosa Rodrigues fully described and illustrated specimens he had personally collected. At the time the following distributional information was also given: "Brazil; equatorial and oriental, in silvis Rio Arinos, serra dos Parecis, Rosario, Rio Cuiyaba, S. Miguel das Areias, Tombador, in Mato Grosso. Also in woods near Rios Tapajos, Madeira, Purus, near upper Rio Amazonas; cultivated in Jardim Botânico Rio, no. 1398. Extends from the Guianas to the forests of Amazonas entering Mato Grosso (forming large forests) and continuing into Bolivia." After some deliberation, Barbosa Rodrigues (1903) decided to transfer O. martiana back to his original combination of O. speciosa.

Barbosa Rodrigues (1898) also considered O. lydiae Drude to be conspecific with O. martiana because Drude (1881) had described this species from incomplete collections as well as including incorrect information on its morphology. Furthermore, Drude could not adequately compare his material with Attalea speciosa since it was incompletely known at the time. After Drude published his article, Barbosa Rodrigues made complete collections (unfortunately none of these specimens has been located) from the original tree in Passeio Publico, Rio de Janeiro, and after studying these specimens decided that O. lydiae was synonymous with the "Bagaçu" of Mato Grosso and "Jauassu" of Amazonas. He also noted that the plant described as "acaulous" had actually grown into a large tree. In spite of his discussion in 1898, Barbosa Rodrigues (1903) apparently still recognized O. lydiae as a distinct species because he transferred it to the genus Attalea. Lindman (1900) illustrated this species in a palm forest, with the caption: "Oauassu," the largest and most beautiful palm in Mato Grosso. Moore (1963) says that this taxon is incompletely known, however, I am tentatively treating O. lydiae as a synonym of O. barbosiana because a comparison of the two species reveals many similarities.

Burret (1938) described O. oleifera as a new species to distinguish it from O. barbosiana, and further stated this was the Babassu palm from whose seed oil is extracted. He said he inadvertently included O. oleifera under his discussion of O. martiana in 1929 when he referred to t. 53, fig. 23-25 (1903) of Barbosa Rodrigues which is the same as t. 22 (1898) of the same author. The remaining parts of these plates (t. 53, fig 13-22, 1903; and t. 23A, 1898) pertain to O. barbosiana. Unfortunately, Burret did not indicate any significant differences between the two taxa in either article (1938, 1940); his description of O. oleifera is rather sketchy (e.g., size of pinnae, male and female flowers and spadices are lacking, as well as size of the

tree); and type specimens consist only of leaf material. Burret (1940) also cites Hopp 3013 (B) from Mato Grosso, but I was unable to locate this specimen. Also there is no information on the distribution range of this species except for that given in the cited specimens.

O. campestris Barb. Rodr., Palm. Mattogross. 78. t. 25. 1898; t. 50B. 1903.

Lectotype: Brazil, Mato Grosso, Capão Bonito (t. 25, 1898). c.f. Glassman 1972, p. 178.

Vernacular names: Indaya verdadeiro, Indaya redondo.

Distribution: Brazil, described from the state of Mato Grosso.

Barbosa Rodrigues (1898) lists B.R. 240 under this species, but no specimens have been located. Therefore, the above lectotype was designated. Even though authentic specimens have not been examined, this taxon seems to be distinct based on its description.

During early September, 1976, I visited Capão Bonito, presumably the type locality of this species and apparently that of O. longibracteata Barb. Rodr. and O. macrocarpa Barb. Rodr., as well. This locality is between Sidrolândia and Maracaju within the boundaries of Fazenda Santa Luzia. It is a heavily wooded area surrounded on all sides by agricultural land. Although several kinds of palms grew in the region in the past, none are found there today (with the exception of scattered specimens of a short species of Butia). This is another sad example of destruction of palm habitats by the rapid spread of agriculture in the state of Mato Grosso.

O. cohune (Mart.) Dahlgren ex Standley, Trop. Woods 30:3. 1932; Burret, Notizbl. 11:688. 1932; Standley & Steyermark, fig. 46, 1958. Attalea cohune Mart., Palmet. Orbign. 121. 1844; t. 167. 1845.

Lectotype: Honduras (Martius t. 167. 1845) c.f. Glassman 1972, p. 23.

O. Dammeriana Barb. Rodr., Sert. Palm. Bras. 1:62, t. 54. 1903.

Lectotype: Brazil, cult. Jard. Bot. Rio (Glaziou 16468-B).

Specimens examined: British Honduras, Punta Gorda, H.W. Turner s.n. (F); without locality, J.B. Kinloch s.n. (F); Stann Creek Valley, P.H. Geortle 3234 (B-photo of male spadix). Honduras, Puerto Sierra, P. Wilson 472 (F); Dept. Atlantida, Lancetilla Valley, near Tela, wet forest, Standley 53981

(F); vicinity of Lancetilla, forests, T.G. Yuncker 4970 (F). Guatemala, Dept. Izabal, between Virginia & Lago Izabal, Steyermark 38771 (F); between Bananera & La Presa, Steyermark 39182, 39210 (F); Dept. Alta Verapaz, woods S.E. of Finca Yalpemech, Steyermark 45211, 45693 (F). Cultivated, Cuba, Soledad, Atkins Gardens, Dahlgren 4619 (F); British Guiana, Georgetown Botanical Gardens, Dahlgren s.n. (F-610577, 610649, 610772, 610697). Brazil, Jard. Bot. Rio, Glaziou 16468 (B, lectotype of O. dammeriana; C. MO, P).
 Vernacular Names: Cohune - Honduras. Manaca, Corozo - Guatemala.

Distribution: British Honduras, El Salvador, Honduras, Guatemala and? Southern Mexico (Quintana Roo & Campeche).

No specimens were cited by Martius (1844) in his original description nor could any herbarium material be found in Munich; hence, the selection of t. 167 as the lectotype.

Barbosa Rodrigues (1903) did not cite any specimens for Orbignya dammeriana, however, Burret (1929) said that Glaziou 16468 (B), erroneously cited as 16488, probably came from the "type tree" in Jardim Botânico, Rio de Janeiro. The error of citing Glaziou 16488 was perpetuated by both Dahlgren (1936) and Glassman (1972). There is no conclusive proof that Glaziou 16468 (B) actually came from the "type tree," nevertheless I have chosen it as the lectotype rather than an illustration of the plant. According to Burret (1929), O. dammeriana was originally included under O. speciosa (Mart.) Barb. Rodr. when it was transferred from Attalea to Orbignya by Barbosa Rodrigues (t. 9, fig. 1-9, 1891).

According to Moore (1960), pls. 336-338, listed as O. cohune by Dahlgren (1959), are actually O. guacuyule. Both species were previously thought to be synonymous, but were differentiated by Hernandez Xolocotzi (1949).

O. cuatrecasana Dugand, Caldasia 2:285, fig. p. 286. 1943;
Cuatrecasas, pl. 2, fig. 2. 1947.

Holotype: Colombia, Dept. del Valle, Rio Naya (Cuatrecasas 13980-COL).

Specimens examined: Colombia, Dept. del Valle, Rio Naya, Puerto Merizalde, bosque, Cuatrecasas 13980 (COL, holotype; F, isotype); alrededores de Puerto Merizalde, I. Barreto & L.A. Kairuz s.n. (COL); Rio Calima (Choco region), La Trojita, Cuatrecasas 16389 (F); Rio Calima Quebrada de la Brea, R.E. Schultes & M. Villareal 7373 (GH); Aqua Dulce, Buenaventura, O.F. Cook 81 (US).

Vernacular names: Palma Corozo, Taparo Grande.

Distribution: Endemic to Colombia in forested areas along Pacific Coast.

This species is the only Orbignya known from Colombia. It is distinct in being acaulescent, with unclustered pinnae up to 9 cm wide, male flowers spirally arranged around the rachilla, and stamens 16-24 per flower. Dugand placed it in section Spirostachys of Burret (1929) characterized by having male flowers spirally arranged around the rachillae rather than on one side.

O. eichleri Drude, Mart. Fl. Bras. 3:449, t. 103. 1881.

Lectotype: Brazil, Goias, Sertão d'Amaroleite (Weddell 2705 - P); c.f. Dahlgren pl. 339. 1959 (excluding leaf).

Specimens examined: Brazil central (Goias), Sertão d'Amaroleite, Weddell 2705 (P, lectotype - excluding leaf); Maranhão, Caxias, Bondar s.n. (F, RB-80812); Maranhão, Ilha dos Botes, J. Murça Pires & G.A. Block 1575a (NY).

Vernacular names: Piassava, Piassaveira, Pindoba.

Distribution: Native to Brazil in states of Goias and Maranhão, and probably Piauhuy.

In 1881, Drude cited both Gardner 2755 from Piauhuy and Weddell 2705; however, only Weddell 2705 (P) has been located, which has the following inscription: "Original at Kew." Since Weddell 2705 (P), consisting of a male spadix and whole leaf, is the only specimen found among those cited by Drude, it has been chosen as the lectotype. The leaf should be excluded from the type, however, because it is certainly not an Orbignya, but most probably is Syagrus flexuosa (Mart.) Becc.

Burret (1929) cited Snethlage 648 (B) from Piauhuy under O. eichleri, but after examining this specimen I could not be sure of its identity because it lacks male flowers and middle pinnae.

Bondar (1954) keyed out three closely related Brazilian species of Orbignya: O. speciosa, O. teixeirana and O. eichleri. One of the characteristics he used to distinguish O. speciosa from the other two taxa was male flowers completely surrounding rachilla rather than arranged on one side of rachilla. Apparently, Bondar perpetuated the error of confusing O. speciosa (= O. barbosi) with O. cohune because, in fact, the former species has male flowers on one side of the rachilla, whereas in O. cohune they surround the rachilla.

O. guacuyule (Liebm. ex Mart.). Hernandez X, Bol. Soc. Bot. Mex. 9:17, 1949; Dahlgren, pl. 336-338, 1959. Cocos guacuyule Liebm. ex Mart., Hist. Nat. Palm. 3:323. 1853.
Lectotype: Mexico, Oaxaca, pr. Guatulco (Liebmann 6559-C); c.f. Dahlgren, pl. 338. 1959.
Cocos Cocoyule Mart., Hist. Nat. Palm. 3:324. 1853.
Lectotype: Mexico, Acapulco (Karwinski s.n.-M).

Specimens examined: Mexico, Dept. Oaxaca, pr. Guatulco, Liebmann 6559 (C, lectotype of Cocos guacuyule); Oaxaca, San Benito, 50-60 m tall, B.P. Reno 3462 (US, photo); Acapulco, Karwinski s.n. (M, lectotype of C. cocoyule); Rio Verde, Pinotepa a Puerto Escondido, deciduous forest, T.D. Pennington & J. Sarukhan K. 9488 (NY); Guerrero, near El Papayo, H.E. Moore & E. Valiente 6199 (BH); State of Nayarit, rich woods outside San Blas, H.E. Moore & V. Cetto 6405 (BH); Colima, road to Manzanillo, H.E. Moore 8166 (BH).
Vernacular names: None recorded, but the specific epithet guacuyule was probably based on a local native name.
Distribution: Native to Mexico in the states of Oaxaca, Guerrero, Michoacan, Colima, Jalisco and Nayarit.

No specimens were cited in Martius (1853), hence lectotypes were selected for both C. guacuyule and C. cocoyule.

Many authors considered this taxon to be conspecific with O. cohune (including Dahlgren, pl. 336-338, 1959), but according to Hernandez X (1949), they are distinct species with an essentially allopatric distribution. The latter author distinguishes O. guacuyule from O. cohune mainly by the male flowers having spatulate, acuminate petals 1.2 cm long and 0.5 cm wide, rather than oblanceolate, cuspidate petals 1.5 cm long and 0.7-0.9 cm wide. In both species, however, male flowers completely surround the rachilla rather than being distributed on one side of the rachilla, characteristic of most species of Orbignya.

O. humilis Mart., Palmet. Orbign. 129, t. 10-2, t. 32. 1844; t. 169-1, 1845; t. Z16-3, 1849.
Type: Bolivia, Prov. Chiquitos, prope Mission S. Anna de los Chiquitos, sandy soil (d'Orbigny 22-P, destroyed?).

Specimens examined: Doubtful, Bolivia, Velasco, Otto Kuntze s.n. (NY, US).

Unfortunately, no type material has been located in the herbarium at Paris. This taxon appears to be closely related to Orbignya eichleri Drude because descriptions and illustrations of the two

species are similar. Both taxa, however, are incompletely known (especially information on middle pinnae is lacking); therefore they cannot be adequately differentiated.

In the above cited specimens (Kuntze s.n.) male and female flowers seem to match those of illustrations of O. humilis, but most of the leaf material from (NY) is probably Syagrus flexuosa rather than Orbignya.

O. longibracteata Barb. Rodr., Palm. Mattogross. 79, t. 26, 1898; t. 51, 1903; Burret, Notizbl. 15:103. 1940.
Lectotype: Brazil, Mato Grosso, Capão Bonito, fere Serra do Melgaço (t. 51, 1903).

Specimens examined: Doubtful. Brazil, Mato Grosso, Hopp 3002 (B) - leaf part and two photos.

Vernacular names: Indaya mirim, Indaya crespo, Inaja.

Distribution: Described from Brazil in the state of Mato Grosso.

Barbosa Rodrigues (1898) cited B.R. 239 for this taxon, but no specimens have been located; hence, the selection of t. 51, 1903, as lectotype.

Burret (1940) cited Hopp 3002 with the following information: 140 S. Lat., characteristic palm of the dry forest steppe of Mato Grosso. I have seen this specimen which is presently represented only by a leaf part and two photos, one of a living plant growing out of rocks, and the other photo of a herbarium specimen (probably destroyed) with a leaf part, fruit and androgynous spathe.

Apparently, this species was described as new because of its long acuminate bracts subtending female flowers; however, O. macrocarpa also has long bracts, whereas the bracts of O. campestris are described as "magna minuto." When descriptions of the three taxa mentioned above are compared, they appear to be very similar. It is therefore possible that they may be conspecific, especially since the type locality of all three is listed as Capão Bonito.

The slight differences between them may be merely due to insufficient information. So far, no authentic specimens have been seen for any of the species.

O. macrocarpa Barb. Rodr., Palm. Mattogross. 74, t. 23-24B. 1898; t. 50A. 1903.

Lectotype: Brazil, Mato Grosso, Capão Bonito prope Serra Quebra Cabeça (t. 23-24B, 1898). c.f. Glassman 1972, p. 172.

Specimens examined: Doubtful. Brazil, Mato Grosso, Flussgebiet des Amazonas, stemless, W. Hopp 3011-B, destroyed; F, photo).

Vernacular names: Indaya - assu.

Barbosa Rodrigues (1898) cited B.R. 217, but no specimens were located necessitating the selection of a lectotype from an illustration (see above).

The specimens cited above (Hopp 3011) consisted of a leaf part and an androgynous spathe, but it is difficult to determine with certainty the photograph of this specimen.

As previously mentioned, this taxon may be synonymous with O. campestris and O. longibracteata because of similar type locality and similar morphology. Although all three taxa are recorded from Capão Bonito, Serra do Melgaço is also listed for O. longibracteata and Serra Quebra Cabeça is mentioned for O. macrocarpa as well. Since the two additional locales could not be found on any maps examined, it is not certain if all three place names recorded from Capão Bonito are in the same general vicinity of each other or are actually three different, isolated localities.

O. phalerata Mart., Palmet. Orbign. 126, t. 13-2, 32A. 1844; t. 170, 1845; Karsten & Schenck, t. 35-36. 1910.

Holotype: Bolivia, 12-16° S. lat. in north. part of prov. of Chiquitos and in Moxos. Forms immense forests of pure stands in the land of the Guarayos covering about 10 square miles (d'Orbigny 20-P).

Specimens examined: Bolivia, Chiquitos, d'Orbigny 20 (P, holotype; F, M, isotypes).

Vernacular name: "Cusi."

Distribution: Bolivia, in sandy, wet but not flooded soils.

This taxon is the first one described in the genus Orbignya; hence, it is the type species.

Unfortunately, I have not seen any material referable to this species except the type collections. The specimen from Paris consists of an androgynous spadix with sterile (immature?) female

flowers closely matching t. 32 and t. 170 of Martius. The isotype from Munich contains only male flowers. No leaf material has been seen by me nor is any illustrated by Martius.

Karsten & Schenck (1910) show two photos of this palm growing in forested areas. Plate 35 was taken in Velasco. Previously, I cited a doubtful specimen, O. Kuntze s.n. (NY, US) from Velasco under O. humilis, the only other species of Orbignya described from Bolivia. According to descriptions and illustrations, the two species appear to be distinct (the type specimen of O. humilis could not be found). But since there is a paucity of herbarium specimens, especially leaf material, it would be difficult to carefully compare and contrast both taxa.

Burret (1929) referred to O. phalerata, but most of the information was repeated from Martius's original description.

Martius (1844) mentioned that the seeds yield an excellent oil for burning and for the hair, and that the leaves make a good thatch for roofs.

O. pixuna (Barb. Rodr.) Barb. Rodr., Prot. App. 49. 1879; t. 49. 1903. Attalea pixuna Barb. Rodr., Enum. Palm. Nov. 43. 1875. Lectotype: Brazil, Pará, calcareous soils of l'Igarape Bom Jardim, villa de Itaituba, basin of Rio Tapajos (t. 49, 1903). c.f. Glassman 1972, p. 26.
Attalea spectabilis var. polyandra Drude, Mart. Fl. Bras. 3:440. 1881.
Type: Brazil, Rio Purus (Wallis s.n. - K, destroyed?).

Specimens examined: Doubtful. Brazil, Pará, Boa Vista, Tapajoz, Capucho 523 (F); Tapajoz, Kuhlmann s.n. (F-611560).
Vernacular names: Curua-pixuna, Palha preta.
Distribution: Brazil, in state of Pará.

No specimens were cited by Barbosa Rodrigues in any of his articles, hence the selection of t. 49 as the lectotype.

This species appears to be distinct according to its description and illustration, however, no authentic specimens have been examined. The two specimens cited above consist of fruits only and hence cannot be determined with certainty.

O. polysticha Burret, Notizbl. 11:324. 1932.

Holotype: Peru, Dept. Loreto, Mishuyacu near Iquitos

(G. Klug 205 - US).

Specimens examined: Peru: Dept. Loreto, Mishuyacu, near Iquitos, forest, G. Klug 205 (US, holotype; F); Loreto, Santa Rosa, lower Rio Huallaga, E.P. Killip & A.C. Smith 28814 (NY, US). Venezuela, Terr. Fed. Amazonas, Rio Orinoco, San Pedro, sabanita and bosque, G.S. Bunting, L.M. Akkermans & J. van Rooden 3571 (U); Brazo Casiquiare, near Solano, tropical rainforest, on white sandy soil, Wessels Boer 2409 (U); near San Carlos de Rio Negro, white sandy soil, Wessels Boer 2273 (U).

Vernacular Names: Catirina (Peru), Mavaco (Venezuela).

Distribution: Peru and Venezuela, mostly in Amazon region in tropical rainforests.

Burret (1932) also cited Killip & Smith 28814 (see above) as probably belonging to this species. He also placed O. polysticha in group Spirostachys where the male flowers completely surrounded the rachillae of the male spadix. In this respect, O. polysticha is similar to O. cuatrecasana from Colombia.

Wessels Boer (1972) listed this species as Attalea polysticha from Venezuela, but the name is invalid because the basionym (O. polysticha) was not mentioned in the article.

O. sabulosa Barb. Rodr., Vellozia 1 ed. 1:54. 1888; t. 48. 1903; Burret, 510. 1929.

Lectotype: Brazil, Prov. Amazonas, in sandy pastures near Rio Tarumauacu, in Rio Negro (t. 48, 1903). c.f. Glassman 1972, p. 180.

Specimens examined: Doubtful. Brazil, Amazonas, Manaus, Rio Negro, Huebner s.n., Huebner 4a, Huebner 100, 100a, 100x (B); Amazonas, basin of Rio Negro - Rio Cuieras, savanna forest on sand, Prance, Coelho & Monteiro 14830 (NY).

Vernacular names: Curua, Inaya, Pindova

Distribution: Brazil, Amazon region, in savannas on sandy soil.

No specimens were cited by Barbosa Rodrigues in any of his articles, hence an illustration (t. 48) was chosen as the lectotype.

Burret (1929) cites Huebner 74, 74a (4, 4a?), 100, 100a under this taxon. I have examined some of these specimens (see above), but I cannot be certain of their identity because the collections are incomplete, for the most part. To complicate matters,

Wessels Boer (1965) claims that Huebner 4 and Huebner 100 (B) are actually O. sagotii Trail, a closely related species, because there was a discrepancy between these specimens and the original

description of O. sabulosa.

Prints of two photographs of O. sabulosa taken by George Huebner in Manaos in 1935 are deposited in the Field Museum Herbarium. One photo (460061) shows a whole stand of acaulescent plants while the other is a closeup of a male spadix and an infructescence emerging between the leaves at the base of the plant.

O. sagotii Trail ex Im Thurn, Timehari 3:276. 1884. Attalea sagotii (Trail ex Im Thurn) Wessels Boer, Indig. Palms Suriname 162. 1965.

Lectotype: French Guiana, Karouany (Sagot 831 - K. Erroneously inscribed on herbarium sheet as 631). c.f. Wessels Boer 1965, p. 162.

Specimens examined: French Guiana, Karouany (Sagot 831-K, lectotype; P, isolectotype); Sagot 601 (K, P). Surinam, without locality, Wessels Boer 165, 708, 1440, 1493 (U); Lindeman 6902 (U); vicinity of Zanderij, wet forest on silt loam, Wessels Boer 276 (U); Dist. Brokopondo, high forest, Wessels Boer 392 (U); Bakhuis Mts., P.A. Florschutz & P.J.M. Maas 2960 (U).

Vernacular names: Macoupi, Bergi-Maripa, Koeroea.

Distribution: French Guiana, Surinam and British Guiana.

No specimens were cited by Trail (1884) in his original article; therefore, a lectotype was chosen by Wessels Boer (1965) in his book on Surinam palms. Both Sagot 831 (K) and Sagot 601 (K) were annotated by Trail in 1877 as "O. sagotii n. sp." In addition to this, Drude (1881) incorrectly cited the above numbers under Attalea spectabilis var. monosperma.

Wessels Boer (1965) states that this species is apparently close to O. sabulosa and O. agrestis, both much smaller palms.

O. spectabilis (Mart.) Burret, Notizbl. 10:508. 1929. Attalea spectabilis Mart. Hist. Nat. Palm. 2:136. t. 96. fig. 1-2. 1826; t. 216. 1849; Wessels Boer, 1965.

Type: Brazil, Prov. Pará, Serra de Baru, near Pará and Rio Negro (Martius s.n. - M, not seen). c.f. Burret 1929, p. 508.

Specimens examined: Doubtful. British Guiana, Cult. Georgetown Bot. Garden, Dahlgren s.n. (F-610583), Dahlgren & Millar s.n. (F-610759), L.H. Bailey 489 (BH). French Guiana, Macoupi, Gourdonville, R. Benoist 1707 (P). Surinam,

Rechter Coppename River, on riparian bank, Wessels Boer 1365 (BH,U), near Tafelburg, sandstone rocks, in submesophytic forest, Wessels Boer 1503 (BH, U). Brazil, Amazon, Spruce 32 (K); state of Amazonas, Manaus - Itacoatiara Highway, Reserva Florestal Ducke, forest, G.T. Prance et al 2155 (NY); Para, Monte Alegre, Krukoff 36 (F-614554).

Vernacular names: Curua piranga, Piuna inquirá, Pindoba das Mattas.

Distribution: Surinam, French Guiana and the Amazon region of Brazil in wet forests.

No specimens were cited by Martius in any of his articles. According to Burret (1929), however, he saw a specimen of a rachilla branch with female flowers collected by Martius and labelled A. spectabilis in the herbarium at Munich. But Burret said the collection was actually Orbignya agrestis and noted that it was not determined by Martius. Unfortunately, neither Wessels Boer (1972) nor I have been able to find this particular specimen.

Burret also discusses the incomplete and sometimes confusing description of Martius (1826). He wondered if Martius was describing two species, especially in the size - "acaulescent to several feet tall" - and in the number of stamens - "6 as well as 9-12." It was surprising that Martius did not describe the stamens in detail (i.e., if the anthers were coiled or straight), but he may have had sterile flowers and did not realize he was dealing with a different genus (Orbignya) which he later erected in 1837. Burret (1929) also mentions that Drude (1881) confused this taxon with Maximiliana attaleoides.

I am still not certain of the exact delimitation of O. spectabilis. Martius's description is not clear if the pinnae are clustered or not. Wessels Boer (1972, & unpublished ms.) describes them as being in clusters of 2-3, but in several collections examined they are not clustered (e.g., Prance et al 2155, Dahlgren & Millar s.n., L.H. Bailey 489, and R. Benoist 1707). In addition to this, the number of stamens per male flower is uncertain. Wessels Boer describes them as 6-9 stamens per flower, but in Prance et al. 2155, there are 12 stamens in most of the flowers.

O. teixeirana Bondar, Arq. Jard. Bot. Rio de Janeiro 13:58, fig. 5, 6-3, 1954.

Holotype: Brazil, Maranhão, Caxias (Bondar s.n. - RB-80813).

Specimens examined: Brazil, Maranhão, Caxias, Bondar s.n. (RB- 80813, holotype); Bondar s.n. (F-405257).

Vernacular names: Perinão, Coco de Macacao.

Distribution: Brazil, states of Maranhão and Piauí.

According to Bondar (1954), this species is also found in the state of Piauí, near Terezina, in margin of Rio Paranaíba. He also states that it is probably a hybrid between O. barbosiana (O. speciosa) and O. eichleri, which are both present in the vicinity of the type locality. More collections of this taxon should be examined before this can be verified, because O. teixeirana apparently most closely resembles O. phalerata from Bolivia, which is also poorly known.

O. urbaniana Dammer, Engl. Bot. Jahrb. 31, Beibl. 70:23. 1902; Dahlgren, pl. 344. 1959.

Holotype: Brazil, Goiás, Serra Dourada, in campis (Glaziou 22265-C).

Specimens examined: Brazil, Goiás, Glaziou 22265 (C, holotype; F, G, P, isotypes).

Distribution: Brazil, state of Goiás.

Even though Dammer did not designate the herbarium in which Glaziou 22265 was deposited, the specimen from (C) is inscribed O. urbaniana U. Dam. n. sp., det. by U. Dammer. The other specimens from (F, G and P) do not bear such information. Therefore, the collection from (C) is the holotype.

Burret (1929) cited Glaziou 22265 (B), but this specimen was probably destroyed, as it could not be found.

Dammer (1902) said that O. urbaniana is close to O. lydiae (= O. barbosiana), but like many other species of Orbignya, it is difficult to make comparisons of taxa based on few or incomplete collections.

Species definitely not Orbignya

Orbignya dubia Mart., Hist. Nat. Palm. 3:304, t. 169-6. 1845
= Attalea dubia (Mart.) Burret, Notizbl. 10:537. 1929.

Male flowers of this taxon definitely belong to the genus Attalea, i.e., flattened petals with acute or acuminate tips and straight rather than coiled anthers.

Species Incertae et Dubiae

Orbignya agrestis (Barb. Rodr.) Burret, Notizbl. 10:511. 1929.

Attalea agrestis Barb. Rodr., Enum. Palm. Nov. 42. 1875;

Sert. Palm. Bras. 1:t. 55. 1903.

Lectotype: Brazil, Amazonas region, sandy soil, Rio Uanincha, affluence of Rio Yamunda (t. 55, 1903). c.f. Glassman 1972, p. 22.

Barbosa Rodrigues (1875) cited Barb. Rodr. 324, but apparently this specimen has been destroyed; hence the selection of t. 55 as the lectotype.

It is difficult to determine the genus because male flowers are not mentioned in the descriptions and not illustrated in t. 55. Burret (1929) transferred this species to Orbignya because of its resemblance to O. sabulosa Barb. Rodr. He also cites Huebner 4b (B) from Manaus, which consists of immature fruits and leaf parts. I have examined this specimen and do not consider it to be diagnostic.

O. huebneri Burret, Notizbl. 10:501. 1929.

Holotype: Brazil, Amazonas, Lago Mondurucú, Rio Manacapurú, Solimões (Huebner 64-B)

The holotype consists of fruit and leaf material, but no male flowers were collected or described. Burret suggests a resemblance to O. speciosa (= O. barbosiana), but says that the two species differ mainly in the structure of the fruit and in the period of flowering.

Burret (1929) refers to photographs of this taxon, but none were published in his article. Prints of three photographs of O. huebneri, taken by George Huebner in Manaus in 1935, are deposited in the Field Museum Herbarium. One photo (460060) illustrates a juvenile acaulescent plant with extremely long leaves, whereas the other two (460058-59) show mature trees about 13 m tall with unclustered pinnae.

Another collection possibly belonging to this species was determined by Burret: Mus. Goeldi Garten, Capt. H.A. Johnstone 1038 (B). It consists of mature fruits and naked androgynous rachillae.

Orbignya huebneri is probably synonymous with O. barbosiana, but should remain a species dubia until additional material from the type locality, especially male flowers, can be studied.

O. macrostachya Drude nomen in Sceda ex Barb. Rodr., Sert. Palm. Bras. 1:60. 1903; c.f. Burret 1929, p. 513.

This entry is based on a herbarium specimen (Glaziou 16488-BR) determined by Drude as a new species, and labelled as such, but a description was never published. Burret (1929) listed this name as a synonym of O. dammeriana Barb. Rodr. and cited Glaziou 16488. The latter specimen has been erroneously cited as the type of O. dammeriana by Dahlgren (1936) and Glassman (1972), but the type of this species is actually Glaziou 16468-B (see discussion of synonymy under O. cohune). Glaziou 16488 (BR) consists of two sheets with part of a male spadix and male flowers, but the specimens are undoubtedly an undetermined species of Scheelea. Because O. macrostachya has no published description and is actually a species of Scheelea, it should be designated as nomen nudum et confusum.

O. microcarpa (Mart.) Burret, Notizbl. 10:507. 1929.
Attalea microcarpa Mart. Palmet. Orbign. 125. 1844;
t. 168-2, 1845; t. 216-5. 1849.
Type: Brazil, Para' (no specimens cited).

Burret (1929) indicated that the spadix illustrated in t. 168 was in the collections at Munich. However, I have not seen any specimens from that herbarium labelled A. microcarpa.

Burret had no justification for transferring the name to Orbignya because male flowers and leaves were neither described nor illustrated. Therefore, its status is uncertain.

O. racemosa (Spruce) Drude, Mart. Fl. Bras. 3:448. 1881;
Dahlgren, pl. 343. 1959. Attalea racemosa Spruce,
Journ. Linn. Soc. 11:166. 1871.
Holotype: Venezuela, between Rio Negro and Guasie
(Spruce 54-K).

The genus to which this species belongs is uncertain because male flowers were not described by Spruce (1871) or Drude (1881). Type specimens from Kew and Paris are without male flowers, as well.

Wessels Boer (1972) equates Attalea racemosa with A. ferruginea, probably because both have pinnae with ferruginous

margins and both species come from the Rio Negro region of Venezuela. At present, there is insufficient evidence to definitely lump these two species together.

Species closely related to Orbignya, but which probably belong to distinct genera

Attalea crassispatha (Mart.) Burret, Sv. Vet. Akad. Handl. 6:23, t. 8-11. 1929b; Bailey, fig. 167-170, 1939.

Maximiliana crassispatha Mart., Palmet. Orbign. 110. 1844.

Lectotype: Haiti (Plumier, Nov. Pl. Amer. Gen. t. 1. 1703); c.f. Dahlgren, 1936, pp. 209-210.

Specimens examined: Haiti, Fond des Negres, E. Ekman 7164 (NY); O. F. Cook s.n. (BH); L. H. Bailey 299 (BH);

L. Figueiras & P. Louis 2785 (F); between Cavaillon and Aux Cayes, H. Loomis & T. Fennell s.n. (US).

Vernacular names: Carossier, Petit coco.

Distribution: Endemic to Haiti.

Since no specimens were cited by Martius, Plumier's Plate was chosen as the lectotype.

Even though this taxon is relatively rare and probably is confined to one region of Haiti, it is very distinct and well-known botanically (except for the male spathe and spadix which apparently has not been described or collected).

Male flowers (from the androgynous spadix) have coiled and twisted anthers, and fleshy, curved petals, suggesting either Orbignya or Parascheelea. Wessels Boer (1971) says that this species, with its 9-11 stamens and twisted anthers, resembles the Markleya staminate flower type. However, all of the flowers I examined from androgynous rachillae have only 6 stamens.

Cook (1939) described this taxon under a new genus, Bornoa (which is invalid, because it was published without a Latin description); and Moore (1963) thought that Cook was perhaps correct in considering it as a distinct genus (from Attalea as well as other allied genera).

MARKLEYA Bondar, Arq. Jard. Bot. Rio de Jan. 15:49-55. 1957.

Type species: Markleya dahlgreniana Bondar.

M. dahlgreniana Bondar, l.c. 50, fig. 1, foto 1-3. 1957.
Attalea dahlgreniana (Bondar) Wessels Boer, Indig.
 Palms Suriname 158. 1965.
 Holotype: Brazil, Pará, Tracuateua, munic of Bragança
 (Bondar s.n. - RB-95829).

Specimens examined: Brazil, Pará, Bragança, Bondar
 s.n. (RB-95829, Holotype; F, isotype). Surinam,
 Palaime Creek, Wessels Boer 805 (F, U); near Coeroeni
 airstrip, Wessels Boer 1587 (F, U).
 Vernacular name: Perinão.
 Distribution: Brazil (state of Pará); and Surinam.

In his original article, Bondar speculates that this taxon is probably a hybrid between Orbignya speciosa (= O. barbosi-iana) and Maximiliana regia (= M. martiana), because it grows in conjunction with these two species. Wessels Boer, however, refutes this idea, because the large uniform populations he saw in Surinam produced fertile fruits. Moore (1973) says that Markleya is a possible hybrid and does not list it as a distinct genus in his article on "Major groups of palms."

Male flowers have twisted and coiled anthers like Orbignya, but the petals are flat and curved similar to Parascheelea.

PARASCHEELEA Dugand, Caldasia 1:10. 1940.

Type species: Parascheelea anchistropetala Dugand.
P. anchistropetala Dugand, l.c. 12, fig. 4-5. 1940.
 Holotype: Colombia, Vaupes, Cerro de Circasia (Cuatrecasa 7172 - COL).
P. luetzelburgii (Burret) Dugand, Caldasia 1:24. 1941.
Orbignya luetzelburgii Burret, Notizbl. 10:1019. 1930.
 Holotype: Brazil, Amazonas, Jutica Varadouro (Luetzelburg 21969-B).

Specimens examined: Colombia, Vaupes, Circasia, sandy savannah quartzite base, Schultes & Cabrera 19207 (US); Vaupes, Cerro de Circasia, Cuatrecasas 7172 (COL, holotype of P. anchistropetala). Brazil, Amazonas, Jutica Varadouro, Urwald, Luetzelburg 21969 (B, holotype of O. luetzelburgii; M, isotype). Venezuela, Terr. Amazonas, near Santa Rosa de Amanadona, white sandy soil, Wessels Boer 2357, 2374 (F, U).
 Vernacular names: Curua, Yapo (Colombia); Curuaraua (Venezuela).
 Distribution: Colombia, Brazil and Venezuela, mostly in Amazon region.

Originally described as a distinct genus from Orbignya mainly because petals of the male flowers are plano-convex and broader below and gradually narrowed above rather than flattened petals narrowed below and abruptly broadened above.

According to Wessels Boer (Palms of Venezuela - unpublished manuscript), Dugand described P. anchistropetala as having a double branched inflorescence, but the type material shows a simply branched spadix. Dugand also observed the resemblance between this species and Orbignya luetzelburgii, but he was reluctant to unite them because of his misinterpretation of the inflorescence. Wessels Boer (1972) also made a new combination, Attalea luetzelburgii (misprinted as "wetzelburgii"), but this name is invalid because the basionym was not listed. He had intended to list it in a subsequent manuscript with full taxonomic treatment of Attalea, sensu latu, but unfortunately, this paper never was published.

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